2009/2010

EXPLORE®

Interpretive Guide for Student and School Reports

ACT®

This *Interpretive Guide* is designed to help you understand and effectively use the EXPLORE® Student Score Reports, Student Score Labels, Student List Report, Profile Summary Report, Presentation Packet, and Early Intervention Rosters, all of which are provided as a standard service of the EXPLORE program. Please keep the following cautions in mind:

- The validity of conclusions about student groups depends, in part, on the accuracy of data reported by students at the time of testing (gender, ethnicity, coursework plans, and other personal information), which are not verified by ACT.
- Numerous social, economic, and instructional factors are known to contribute to educational achievement. Relatively few of these factors are represented in these reports. Conclusions about educational programs or policies at your school, based on student achievement, should be supported by information from additional sources.
- In making decisions or drawing conclusions based on differences among groups of students, extreme caution must be employed when the number of students in any group is small. ACT urges extreme caution when interpreting summary results for groups with an N-count of fewer than 25 students because of the instability associated with data from small samples. This is particularly important when the identity of group members can be easily determined and confidentiality is likely to be breached through release of data.
- When sharing EXPLORE results with others, identify the population represented by the report. For example, conclusions regarding your entire class are appropriate only if all, or nearly all, of your students participated in the program, or you have determined that those who took the test are representative of the class as a whole.

AN OVERVIEW OF THE EXPLORE PROGRAM

EXPLORE Tests

EXPLORE includes four 30-minute multiple-choice tests—English, Mathematics, Reading, and Science. EXPLORE also collects information about students' interests, needs, plans, and selected background characteristics. A complete description of the EXPLORE tests and program components is provided in the *EXPLORE Test Supervisor's Manual*.

EXPLORE Score Scale

For each of the four EXPLORE tests, the number of questions answered correctly is counted to obtain a raw score, which is then converted to a scale score. Scale scores for the four tests and the Composite range from a low of 1 to a high of 25. The two EXPLORE subscores in English (Usage/Mechanics and Rhetorical Skills) are reported on a score scale ranging from a low of 1 to a high of 12. These subscores have been scaled independently from the English Test score, so their sum will not necessarily equal the English scale score. Neither are the EXPLORE subscores on the same score scale as the subscores for PLAN® (the ACT 10th-grade test).

EXPLORE and PLAN are on a common scale. Although the tests are on a common scale, there are some differences. PLAN is more difficult than EXPLORE in order to assess the greater academic development that may be expected of 10th graders. This is reflected in the different score ranges of the two test batteries. The maximum score allowed on EXPLORE is 25, whereas PLAN testers may score as high as 32. This relationship means that students would be expected to receive the same score on EXPLORE and PLAN if they took both test batteries on the same day. Therefore, when you compare students' EXPLORE scores (most often from 8th or 9th grade) to their PLAN scores (most often from 10th grade), you can interpret an increase directly and confidently as academic growth.

EXPLORE Test Forms

New EXPLORE forms are equated through special studies so that EXPLORE scale scores represent the same level of achievement regardless of form. Differences in difficulty across forms may result in maximum scale scores on some tests in some forms of less than 25.

National Norms

ACT conducts national studies in which the EXPLORE tests are administered to 8th-grade and 9th-grade students in schools across the United States. Data from the study are used to create norms, or cumulative percents, for EXPLORE. The norms reported for EXPLORE scores are intended to be nationally representative. Visit **www.act.org/explore/norms** for more information on how to use EXPLORE norms to interpret student test scores.

Local comparisons to the national norm group are most appropriate when EXPLORE is administered under conditions similar to those in the norming study—with all four tests administered in a single session in the standard order, and students having calculators available for use on the Mathematics Test.

School Norms Reporting

ACT routinely prints school norms, or cumulative percents, on the Student List Report. School norms are provided on the Student Score Reports only for schools that purchase the Enhanced Reporting Package. When school norms are reported, they are printed on the Student Score Report in the column labeled "In Your School."

ACT also offers district norms, or cumulative percents, for EXPLORE. District norms are available on the district data file when a district orders the Enhanced Reporting Package.

Student Information

The Student Information Section collects name, gender, birth date, current grade in school, racial/ethnic background, and student identification number. A needs assessment allows students to identify the amount of help they need in each of seven areas of academic and career development. The UNIACT Interest Inventory assesses students' preferences for work-related tasks.

Supplemental Items

A Supplemental Item section offers the option of administering up to twelve locally developed questions to collect student information of particular interest to your school or district. Student responses are summarized in Table 6 of the School Profile Summary Report.

Student Planning Guide

Each student who participates in EXPLORE should receive a planning guide, *Using Your EXPLORE Results*, which includes an explanation of information reported on the Student Score Report and activities to help students use EXPLORE results in career and course planning.

STANDARD EXPLORE REPORTS

Student Score Report

Two copies of each Student Score Report are provided. One copy should be distributed to the student, along with a copy of the student planning guide. The second copy can be retained for school use.

Student Score Labels

Student Score Labels are self-adhesive labels to be affixed to a student's permanent records. Two copies of each Student Score Label are provided.

Student List Report

A list of tested students shows test scores, national cumulative percent, estimated PLAN Composite score range, educational plans, and career preferences.

Profile Summary Report

A Profile Summary Report is provided for each school testing at least one student in the scoring batch with a valid EXPLORE Composite score who tested under standard time limits.

Presentation Packet

The Presentation Packet summarizes your school's EXPLORE results in charts and graphs for easy presentation to groups. It includes three-year trends in your school's average EXPLORE scores.

Early Intervention Rosters

The Early Intervention Rosters identify students who qualify under three categories. This information can help you to design intervention strategies to assist students to reach their academic and career goals.

ENHANCED REPORTING PACKAGE

The EXPLORE Enhanced Reporting Package includes all of the reports in the Standard packages **plus** the following:

School and District Norms. School and district norms are provided in the EXPLORE Research Data File. All records to be included in a norm group must be submitted to ACT for scoring at the same time.

Research Data File. Files are delivered on CD in both ASCII and CSV format to provide flexibility for local use. This service provides complete EXPLORE data on every student tested in your school or district.

Item-Response Summary Report. Provides tables describing the item-by-item performance of your EXPLORE examinees. Item-response results are categorized by test (e.g., English), by subscore (e.g., Usage/Mechanics), and by content area (e.g., Punctuation) and provide comparisons to other students taking the same test form.

UNDERSTANDING YOUR EXPLORE STUDENT SCORE REPORTS

Student identification information, needs, and plans and background information shown on the Student Score Report are collected on the EXPLORE answer folder using the booklet *Instructions for Completing Your Answer Folder*. Students who complete the EXPLORE tests receive four scores, two subscores in English, and a Composite score. For students who have a Composite score, ACT reports an estimated PLAN Composite Score Range. Additional information is provided in the *EXPLORE Test Supervisor's Manual.* All data elements collected during EXPLORE administration (including test item responses) are included in the student records available on CD for schools that purchased the Enhanced Reporting Package.

Further information about EXPLORE test scores and national norms is provided in the *EXPLORE Test Supervisor's Manual* and on the ACT website at **www.act.org/explore/norms** and **www.act.org/explore/pdf/TechManual.pdf**. The planning guide, *Using Your EXPLORE Results,* also provides explanations and suggestions for using EXPLORE results. ACT has also developed College Readiness Standards, descriptions of the knowledge and skills associated with EXPLORE scores. The College Readiness Standards for EXPLORE are presented on pages 5–10 of this *Interpretive Guide*.

UNDERSTANDING YOUR EXPLORE STUDENT LIST REPORT

How did our students perform on the EXPLORE tests compared to other students nationally? What are their self-reported educational and career plans?

The EXPLORE Student List Report lists all tested students in alphabetical order by last name. For each student listed, the list report shows the student identification number, student-reported post-high school educational plans, student-reported preliminary career plans, and the student's estimated PLAN Composite score range.

Scale scores and national cumulative percents are provided for each test score and subscore.

UNDERSTANDING YOUR PROFILE SUMMARY REPORT

Tables 1a, 1b, and 1c. *How do the EXPLORE scores and subscores of our students compare with those of other students nationally? Are our students **On Track** to be college ready when they graduate from high school?*

Table 1a provides your local mean and standard deviation, as well as the distribution of scores for each test and the Composite score. **Table 1b** reports local and national results for the English subscores. You can compare your local results to national cumulative percents, means, and standard deviations to determine how your students performed relative to a nationally representative sample of students. Local cumulative percents are based on test scores available from the scoring batch, except those with invalid Composite scores and those achieved under extended time. **Table 1c** reports both the local and national percentages of students that fall within each of the College Readiness Standards™ score ranges and the percent that are on track to be ready for college.

Table 2. *Do our students' EXPLORE scores differ by ethnic and gender group?*

This table reports your local mean scores by gender and racial/ethnic background, as reported by students on their EXPLORE answer folders, as well as the percentage of students planning to take a college-preparatory core curriculum. Keep in mind that summary results for groups with fewer than 25 students should be interpreted with caution because of the instability associated with data from small samples.

Table 3. *How do our students' EXPLORE Composite scores and coursework plans relate to their educational plans?*

This table summarizes students' self-reported educational plans after high school, their coursework plans, and their EXPLORE Composite scores. Results include the number (frequency) and percentage of your students who selected each educational level. The table also shows the percentage of students selecting each educational level who also reported plans to complete a college-preparatory core curriculum in high school, and their average EXPLORE Composite scores. National EXPLORE Composite score quartiles are reported for all levels. While student plans may be very preliminary, this table provides an overview of your students' aspirations and understanding of educational planning.

Table 4. *How do our students' EXPLORE Composite scores and coursework plans relate to their expressed needs for help?*

This table summarizes your students' self-reported needs for assistance in seven academic and career areas. Percentages are based on the total N shown below the table. The table also shows the percentage of students by need area who also reported plans to complete a college-preparatory core curriculum and their average EXPLORE Composite score. National EXPLORE Composite score quartiles are also reported for need areas.

Tables 5a and 5b. *How do our students' EXPLORE Composite scores, coursework plans, and postsecondary plans relate to their career preferences from the Career Areas List? How do our students' EXPLORE Composite scores, coursework plans, and postsecondary plans relate to their career clusters from the World-of-Work Map?*

Table 5a provides information about your students' preferences for occupations in 26 general career areas and six career clusters. The information about career preferences comes from students' answers to Question 18 in the Plans and Background Section of EXPLORE.

Table 5b provides information about your students' interests in six career clusters, based on their responses to the Interest Inventory.

Tables 5a and 5b also show the following information for each career area and career cluster, based on your students who have a preference for/interest in the career area: 1) the percentage of your students who are planning to complete a college-preparatory core curriculum, 2) your students' educational plans, and 3) your students' average EXPLORE Composite scores.

Table 6. *How did our students respond to the local supplemental items in block M?*

This table is provided only if you indicated on your School Header that you administered locally developed supplemental items. Up to twelve items, each with up to six response options (A–F), can be studied.

Note: National normative data are based on students who took all four academic tests within standard time limits as part of a national study. Visit **www.act.org/explore/norms** for further information about the national norming sample.

UNDERSTANDING YOUR PRESENTATION PACKET

Your Presentation Packet includes full-page, black-and-white graphics (charts) describing your EXPLORE summary results. The charts are based on local students with valid Composite scores who tested under standard time limits.

Keep in mind that results for groups with fewer than 25 students should be interpreted with caution because of the instability associated with data from small samples.

The packet includes the following charts:

Chart 1. *How does our students' performance compare with that of students in the national norm group?* This chart compares the achievement of students in your schools with that of students nationwide by subject area and Composite scores.

Chart 2. *Are our students achieving similarly across racial/ethnic backgrounds?* This chart includes your local EXPLORE means by racial/ethnic backgrounds.

Chart 3. *Are our students achieving similarly across gender groups?* This chart includes your local EXPLORE means by gender group.

Chart 4. *How do our students differ in their career preferences?* This chart shows the percentages of your students who indicated a preference for one of six possible career clusters by their plans to attend either a two-year or a four-year college.

Chart 5. *What percentage of our students reported needing help in particular areas?* This chart shows the percentages of your students who indicated a need for help in up to seven possible areas.

Chart 6. *Is the academic achievement of our students improving?* This chart provides your local mean EXPLORE scores for the most recent three years, compared to the current EXPLORE national norms.

Chart 7. *How do our students planning to take college core coursework compare to those who are not planning to take college core coursework?* This chart provides your EXPLORE means by planned college core coursework for the most recent three years.

UNDERSTANDING YOUR EARLY INTERVENTION ROSTERS

Early Intervention Rosters include lists of students from your school who qualify under three possible categories. The three rosters include the following:

Roster 1. Early Identification. *Which of our EXPLORE-tested students reported that they do not plan to finish high school or have no post-high school educational plans?* Students in this category are listed alphabetically by name with their EXPLORE scores, their coursework plans, and their educational plans.

Roster 2. Coursework Intervention. *Which of our students earned an EXPLORE Composite score at or below the national 10th percentile for students in the national norming study?* Students in this category are listed alphabetically by name with their EXPLORE scores.

Roster 3. Need For Assistance. *Which of our students expressed a need for help in one or more selected areas?* Students in this category are listed alphabetically by name with their EXPLORE scores and selected area(s) of need for which they indicated needing help.

COLLEGE READINESS STANDARDS FOR EXPLORE

You just received the Student and School Reports for EXPLORE, and you may be wondering what the test results *really* mean. In other words, what do the test scores on EXPLORE tell you about *what students are likely to know and to be able to do?*

To help answer these questions, ACT provides information in the form of **College Readiness Standards**. The Standards describe the types of skills and knowledge *typically* demonstrated by students who score in particular score ranges on each test of EXPLORE. The comments about a student's academic achievement on the Student Score Report are based on these Standards.

What Are College Readiness Standards?

College Readiness Standards are sets of statements that represent widely held learning goals or expectations of what students have learned up to 8th grade that is important for success in high school and beyond. The Standards show how students' skills can progress, becoming increasingly sophisticated from score range to score range. As you review the Standards on pages 7–10, you will note that they address all four academic areas measured in EXPLORE: English, mathematics, reading, and science. Standards are provided for four score ranges along the EXPLORE score scale (13–15, 16–19, 20–23, and 24–25). If students in your school obtain a score between 1 and 12, they are most likely *beginning* to develop the knowledge and skills described in the 13–15 score range for that particular EXPLORE test.

Why Are College Readiness Standards Needed?

The purpose of the Standards is to help high school counselors, classroom teachers, and administrators, as well as students and their parents, to better understand how the scores relate to the kinds of skills needed for success in high school and beyond.

EXPLORE is a curriculum-based assessment, which means that it measures what students can do with what they have learned. EXPLORE is designed to measure students' development of knowledge and skills in the same four academic areas as PLAN and the ACT® (ACT's 10th- and 11th/12th-grade assessments, respectively). The knowledge and skills measured by these assessments differ in sophistication and complexity from grade 8 to grade 12. So, the Standards serve as a direct link between what students have learned and what is being taught in the classroom.

How Should the College Readiness Standards Be Interpreted and Used?

The Standards provide a list of statements that describe what students are *likely* to know and to be able to do if they score in specific score ranges. The Standards are cumulative, which means that if students score, for example, in the 16–19 range on the English Test, they are likely to demonstrate most or all of the skills and understandings in the 13–15 and 16–19 score ranges. Students can use the Standards to help select courses to take in high school based on the types of knowledge and skills they will need to develop to be prepared for the future.

Because no one test form measures all of the knowledge and skills included in any particular Standard, the Standards must be interpreted as skills and knowledge that *most* students who score in a particular score range are *likely* to be able to demonstrate. Since there were very few items in the lowest range that were answered by 80% or more of the students, the Standards in this range should be interpreted cautiously. Students who obtain scaled scores of 12 or below are in the process of developing the knowledge and skills described in the 13–15 score range, but they may not as yet be able to demonstrate consistent achievement of them.

It is important to remember that EXPLORE does not measure *everything* students have learned in middle school or junior high, nor does any particular form of this test measure *everything* necessary for students to know to be successful in high school. EXPLORE includes a wide range of knowledge and skills that has been judged to be important for success in high school and beyond. So, the College Readiness Standards should be interpreted in a responsible way and be used together with other information about students' knowledge and skills to better understand what they will need to make a successful transition to high school.

COLLEGE READINESS BENCHMARK SCORES

ACT has identified scores for each of the four EXPLORE tests—English, Mathematics, Reading, and Science—that indicate students' probable readiness for college-level work by the time they graduate from high school. There is a set of benchmark scores for students who take EXPLORE in grade 8, and another set for students who take EXPLORE in grade 9 (see table). This information can be used to help students improve their academic readiness for college-level work.

TEST	EXPLORE BENCHMARK SCORE	
	Grade 8	Grade 9
English	13	14
Mathematics	17	18
Reading	15	16
Science	20	20

Eighth-grade students now scoring at or above the 8th-grade EXPLORE English benchmark score (13) are likely on track to develop the skills necessary to succeed in a college English composition course; 8th-grade students scoring at or above the 8th-grade EXPLORE Mathematics benchmark score (17) similarly are likely on track to develop the skills necessary to succeed in an entry-level college algebra course; and 8th-grade students scoring at or above the 8th-grade EXPLORE Science benchmark score (20) are likely on track to develop the skills necessary to succeed in an introductory college-level biology course. Eighth-grade students scoring at or above the 8th-grade EXPLORE Reading benchmark score (15) are likely on track to develop the skills necessary to succeed in college social science courses. This predictability assumes the student will continue to demonstrate the same level of academic achievement that has been exhibited up to this point. College Readiness Benchmark Scores are also available for PLAN and the ACT.

College Readiness Benchmark Scores are based on the actual performance of ACT-tested students in first-year college courses (English Composition, College Algebra, Social Science courses, and College Biology). ACT College Readiness Benchmark Scores were established to correspond to a 50 percent likelihood that students attaining these scores would achieve a grade of B or better in these courses. Then, EXPLORE College Readiness Benchmark Scores were identified at grades 8 and 9, and PLAN College Readiness Benchmark Scores were identified at grade 10, that reflected a strong likelihood that students would meet the ACT benchmark scores by the time they graduated from high school.

College Readiness Standards for EXPLORE

EXPLORE English Test College Readiness Standards by Strand and Score Range

The statements below describe what students who score in the specified score ranges are *likely* to know and to be able to do.

	Topic Development in Terms of Purpose and Focus	Organization, Unity, and Coherence	Word Choice in Terms of Style, Tone, Clarity, and Economy	Sentence Structure and Formation	Conventions of Usage	Conventions of Punctuation
Score Range 13–15		Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*)	Revise sentences to correct awkward and confusing arrangements of sentence elements Revise vague nouns and pronouns that create obvious logic problems	Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences	Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives	Delete commas that create basic sense problems (e.g., between verb and direct object)
Score Range 16–19	Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay	Select the most logical place to add a sentence in a paragraph	Delete obviously synonymous and wordy material in a sentence Revise expressions that deviate from the style of an essay	Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence	Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead*	Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element)
Score Range 20–23	Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details	Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first, afterward, in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph	Delete redundant material when information is repeated in different parts of speech (e.g., "alarmingly startled") Use the word or phrase most consistent with the style and tone of a fairly straightforward essay Determine the clearest and most logical conjunction to link clauses	Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers)	Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for, appeal to*) Ensure that a verb agrees with its subject when there is some text between the two	Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause)
Score Range 24–25	Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement	Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore, however, in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward	Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence Identify and correct ambiguous pronoun references Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay	Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence	Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*	Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons

EXPLORE Mathematics Test College Readiness Standards by Strand and Score Range

The statements below describe what students who score in the specified score ranges are *likely* to know and to be able to do.

Score Range	Basic Operations & Applications	Probability, Statistics, & Data Analysis	Numbers: Concepts & Properties	Expressions, Equations, & Inequalities	Graphical Representations	Properties of Plane Figures	Measurement
13–15	Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes)	Calculate the average of a list of positive whole numbers Perform a single computation using information from a table or chart	Recognize equivalent fractions and fractions in lowest terms	Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals	Identify the location of a point with a positive coordinate on the number line		Estimate or calculate the length of a line segment based on other lengths given on a geometric figure
16–19	Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems	Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Read tables and graphs Perform computations on data from tables and graphs Use the relationship between the probability of an event and the probability of its complement	Recognize one-digit factors of a number Identify a digit's place value	Substitute whole numbers for unknown quantities to evaluate expressions Solve one-step equations having integer or decimal answers Combine like terms (e.g., $2x + 5x$)	Locate points on the number line and in the first quadrant	Exhibit some knowledge of the angles associated with parallel lines	Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given
20–23	Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average	Calculate the missing data value, given the average and all data values but one Translate from one representation of data to another (e.g., a bar graph to a circle graph) Determine the probability of a simple event	Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor	Evaluate algebraic expressions by substituting integers for unknown quantities Add and subtract simple algebraic expressions Solve routine first-degree equations Perform straightforward word-to-symbol translations	Locate points in the coordinate plane	Find the measure of an angle using properties of parallel lines Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)	Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given
24–25	Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)	Calculate the average, given the frequency counts of all the data values Manipulate data from tables and graphs Compute straightforward probabilities for common situations	Find and use the least common multiple Order fractions Work with numerical factors Work with scientific notation Work with squares and square roots of numbers	Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Identify solutions to simple quadratic equations		Use several angle properties to find an unknown angle measure	Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information

EXPLORE Reading Test College Readiness Standards by Strand and Score Range

The statements below describe what students who score in the specified score ranges are *likely* to know and to be able to do.

	Main Ideas and Author's Approach	Supporting Details	Sequential, Comparative, and Cause-Effect Relationships	Meanings of Words	Generalizations and Conclusions
Score Range 13–15	Recognize a clear intent of an author or narrator in uncomplicated literary narratives	Locate basic facts (e.g., names, dates, events) clearly stated in a passage	Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage	Understand the implication of a familiar word or phrase and of simple descriptive language	Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives
Score Range 16–19		Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage	Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives	Use context to understand basic figurative language	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages
Score Range 20–23	Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages	Locate important details in uncomplicated passages Make simple inferences about how details are used in passages	Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages	Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages
Score Range 24–25	Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages	Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages	Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Identify clear relationships between characters, ideas, and so on in more challenging literary narratives Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages	Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages

Descriptions of the EXPLORE Reading Passages

Uncomplicated Literary Narratives refers to excerpts from essays, short stories, and novels that tend to use simple language and structure, have a clear purpose and a familiar style, present straightforward interactions between characters, and employ only a limited number of literary devices such as metaphor, simile, or hyperbole.

More Challenging Literary Narratives refers to excerpts from essays, short stories, and novels that tend to make moderate use of figurative language, have a more intricate structure and messages conveyed with some subtlety, and may feature somewhat complex interactions between characters.

Uncomplicated Informational Passages refers to materials that tend to contain a limited amount of data, address basic concepts using familiar language and conventional organizational patterns, have a clear purpose, and are written to be accessible.

More Challenging Informational Passages refers to materials that tend to present concepts that are not always stated explicitly and that are accompanied or illustrated by more—and more detailed—supporting data, include some difficult context-dependent words, and are written in a somewhat more demanding and less accessible style.

EXPLORE Science Test College Readiness Standards by Strand and Score Range

The statements below describe what students who score in the specified score ranges are *likely* to know and to be able to do.

	Interpretation of Data	Scientific Investigation	Evaluation of Models, Inferences, and Experimental Results
Score Range 13–15	Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels)		
Score Range 16–19	Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation	Understand the methods and tools used in a simple experiment	
Score Range 20–23	Select data from a complex data presentation (e.g., a table or graph with more than three variables; a phase diagram) Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram	Understand the methods and tools used in a moderately complex experiment Understand a simple experimental design Identify a control in an experiment Identify similarities and differences between experiments	Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Identify key issues or assumptions in a model
Score Range 24–25	Compare or combine data from two or more simple data presentations (e.g., categorize data from a table using a scale from another table) Compare or combine data from a complex data presentation Interpolate between data points in a table or graph Determine how the value of one variable changes as the value of another variable changes in a complex data presentation Identify and/or use a simple (e.g., linear) mathematical relationship between data Analyze given information when presented with new, simple information	Understand the methods and tools used in a complex experiment Understand a complex experimental design Predict the results of an additional trial or measurement in an experiment Determine the experimental conditions that would produce specified results	Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Identify strengths and weaknesses in one or more models Identify similarities and differences between models Determine which model(s) is(are) supported or weakened by new information Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

Science College Readiness Standards are measured in the context of science topics students encounter in science courses. These topics may include:

Life Science/Biology	Physical Science/Chemistry, Physics	Earth and Space Science
• Animal behavior • Animal development and growth • Body systems • Cell structure and processes • Ecology • Evolution • Genetics • Homeostasis • Life cycles • Molecular basis of heredity • Origin of life • Photosynthesis • Plant development, growth, structure • Populations • Taxonomy	• Atomic structure • Chemical bonding, equations, nomenclature, reactions • Electrical circuits • Elements, compounds, mixtures • Force and motion • Gravitation • Heat and work • Kinetic and potential energy • Magnetism • Momentum • The Periodic Table • Properties of solutions • Sound and light • States, classes, and properties of matter • Waves	• Earthquakes and volcanoes • Earth's atmosphere • Earth's resources • Fossils and geologic time • Geochemical cycles • Groundwater • Lakes, rivers, oceans • Mass movements • Plate tectonics • Rocks, minerals • Solar system • Stars, galaxies, and the universe • Water cycle • Weather and climate • Weathering and erosion

GLOSSARY OF TERMS

Abbreviations

— (dash)	Data not available
COMP	Composite score—the average of the four EXPLORE test scores
CP	Cumulative Percent
Eng	English
For Lang	Foreign Language
Freq	Frequencies
L or Local	School, district, or other group for which data is reported
Math	Mathematics
N (Roster)	National norm group
N (Summary Report)	Number of students
NA	Information not available
Nat Sci	Natural Sciences
Nat'l	National norm group
Read	Reading
Rhet Skills	Rhetorical Skills
Sci	Science
SD	Standard deviation
Soc Std	Social Studies
Total N	Total number of examinees in group
U/M	Usage/Mechanics

GENERAL TERMS

Core: A typical college-preparatory curriculum including a minimum number of years of study in the subject areas listed below. Similar preparation may be helpful to students entering other training or preparation programs after high school.

- **English—4 years or more**
- **Mathematics—3 years or more**
- **Social Studies—3 years or more**
- **Natural Sciences—3 years or more**

STATISTICAL TERMS

Mean (Average): The arithmetical sum of a set of scores divided by the total number of scores.

N, N-Count: Number of students. Typically, this refers to the number of student records on which a particular table or data element is based.

Percent: The number of students who gave a certain response, or who obtained a certain scale score, divided by the total number of students, multiplied by 100.

Cumulative Percent (CP): A number used to describe the standing of an individual relative to a defined group. If an examinee with a score of 16 has a CP of 73, it means that 73% of the examinees in the norm group received a score of 16 or lower, or that the student scored the same as or better than 73% of the students in the norm group.

Standard Deviation (SD): The amount of variability (spread) of scores present in a specified group. The greater the spread in scores, the larger the standard deviation.

Scale Scores: Scores equated across test forms to adjust for differences in test difficulty and to ensure comparability of scores across different forms of the EXPLORE tests. An examinee's raw score is obtained by counting the number of items he/she answered correctly. The raw score is then converted to a scale score.

Visit ACT's website at **www.act.org.**

ACT endorses the *Code of Fair Testing Practices in Education* and the *Code of Professional Responsibilities in Educational Measurement,* guides to the conduct of those involved in educational testing. ACT is committed to ensuring that each of its testing programs upholds the guidelines in each *Code.* A copy of each *Code* may be obtained free of charge from ACT Customer Services (68), P.O. Box 1008, Iowa City, IA 52243-1008, 319/337-1429.

P.O. Box 168
Iowa City, IA 52243-0168

 13407